

CLAIMS

1. A terminal device comprising display means; mediating means; and authentication-information transmitting means,

5 wherein the display means comprises a display function for displaying electronic information provided through a network so that a user can browse the information; a specifying-information receiving function for receiving specifying information for specifying the mediating means; 10 and a specifying function for specifying the mediating means by using the received specifying information,

the mediating means is specified by the specifying function and starts the authentication-information transmitting means, and

15 the authentication-information transmitting means is started by the mediating means and transmits device-authentication information to an authentication server.

2. A terminal device according to Claim 1, further

20 comprising:

authentication-result receiving means for receiving an authentication result from the authentication server;

authentication-result transmitting means for transmitting the received authentication result to a 25 providing server for providing electronic information; and

electronic-information receiving means for receiving electronic information transmitted from the providing server based on the transmitted authentication result.

5 3. A terminal device according to Claim 2, wherein the mediating means comprises a using function for using electronic information received from the providing server.

10 4. A terminal device according to Claim 2, further comprising:

requesting means for requesting electronic information to the providing server,

wherein the specifying-information receiving function receives specifying information which is transmitted from 15 the providing server based on the request.

20 5. A terminal device according to Claim 1, wherein the specifying-information receiving function receives specifying information including access information used for accessing the authentication server, and

the authentication-information transmitting means accesses the authentication server by using the received access information.

25 6. A terminal device according to Claim 5, wherein the

authentication server comprises a plurality of authentication servers, and the specifying-information receiving function receives specifying information including access information for each of the authentication servers 5 ranked in an access precedence order.

7. A terminal device according to Claim 2, wherein the specifying-information receiving function receives specifying information including access information used for 10 accessing the providing server, and
the authentication-result transmitting means accesses the providing server by using the received access information.

15 8. A providing server for providing electronic information to the terminal device according to Claim 2, comprising:

specifying-information transmitting means for transmitting specifying information used by the display 20 means of the terminal device for specifying the mediating means which starts the authentication-information transmitting means;
authentication-result receiving means for receiving an authentication result from the terminal device; and
25 electronic-information transmitting means for

transmitting electronic information based on the received authentication result.

9. An electronic-information using method performed in a
5 computer comprising display means; mediating means; and
authentication-information transmitting means, the method
comprising:

10 a display step of realizing, by the display means, a
display function for displaying electronic information
provided through a network so that a user can browse the
information, a specifying-information receiving function for
receiving specifying information for specifying the
mediating means, and a specifying function for specifying
the mediating means by using the received specifying
15 information;

16 a mediating step of specifying the mediating means by
the specifying function in the display step and allowing the
mediating means to start the authentication-information
transmitting means; and

20 an authentication-information transmitting step of
transmitting device-authentication information to an
authentication server by starting the authentication-
information transmitting means in the mediating step.

25 10. An electronic-information providing method used in a

providing server for providing electronic information to the terminal device according to Claim 2,

wherein the providing server comprises specifying-information transmitting means; authentication-result receiving means; and electronic-information transmitting means, and

the electronic-information providing method comprises:

10 a specifying-information transmitting step of transmitting, by the specifying-information transmitting means, specifying information used by the display means of the terminal device for specifying the mediating means for starting the authentication-information transmitting means;

15 an authentication-result receiving step of receiving, by the authentication-result receiving means, an authentication result from the terminal device; and

an electronic-information transmitting step of transmitting, by the electronic-information transmitting means, electronic information based on the received authentication result.

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11. A terminal-device program for realizing, in a computer, a display function; a mediating function; and an authentication-information transmitting function, wherein the display function comprises a display function for displaying electronic information provided

through a network so that a user can browse the information; a specifying-information receiving function for receiving specifying information for specifying the mediating function; and a specifying function for specifying the 5 mediating function by using the received specifying information,

the mediating function is specified by the specifying function and starts the authentication-information transmitting function, and

10 the authentication-information transmitting function is started by the mediating function and transmits device-authentication information to an authentication server.

12. A providing-server program for providing electronic 15 information to the terminal device according to Claim 2, the program realizes, in a computer:

a specifying-information transmitting function for transmitting specifying information used by the display function of the terminal device for specifying the mediating 20 function which starts the authentication-information transmitting function;

an authentication-result receiving function for receiving an authentication result from the terminal device; and

25 an electronic-information transmitting function for

transmitting electronic information based on the received authentication result.

13. A computer-readable storage medium storing a
5 terminal-device program for realizing, in a computer, a display function; a mediating function; and an authentication-information transmitting function,
wherein the display function comprises a display function for displaying electronic information provided
10 through a network so that a user can browse the information; a specifying-information receiving function for receiving specifying information for specifying the mediating function; and a specifying function for specifying the mediating function by using the received specifying
15 information,

the mediating function is specified by the specifying function and starts the authentication-information transmitting function, and

the authentication-information transmitting function is
20 started by the mediating function and transmits device-authentication information to an authentication server.

14. A computer-readable storage medium storing a providing-server program for providing electronic
25 information to the terminal device according to Claim 2, the

program realizes, in a computer:

5 a specifying-information transmitting function for transmitting specifying information used by the display function of the terminal device for specifying the mediating function which starts the authentication-information transmitting function;

10 an authentication-result receiving function for receiving an authentication result from the terminal device; and

15 an electronic-information transmitting function for transmitting electronic information based on the received authentication result.

15. A terminal device comprising information communication means; electronic-information using means; and authentication-information management means,

20 wherein the information communication means comprises a function for receiving authentication-trigger information required for using electronic information provided through a network; a function for analyzing specifying information for specifying the electronic-information using means based on the authentication-trigger information; and a specifying function for specifying the electronic-information using means based on the specifying information,

25 the electronic-information using means is specified by

the specifying function and starts the authentication-information management means, and

the authentication-information management means is started by the electronic-information using means, reads

5 device-authentication information, and transmits the information to an authentication server.

16. A terminal device according to Claim 15,

wherein the authentication-information management means 10 receives an authentication result from the authentication server,

the electronic-information using means transmits the authentication result to a providing server which provides electronic information, and

15 the information communication means receives electronic information transmitted from the providing server based on the authentication result.

17. A terminal device according to Claim 16, wherein the 20 electronic-information using means comprises a using function for using electronic information received from the providing server.

18. A terminal device according to Claim 17, wherein the 25 electronic-information using means allows a user to browse

electronic information, plays back electronic information as music content, or plays back electronic information as moving-picture content.

5 19. A terminal device according to Claim 15, wherein the authentication-trigger information includes authentication-server access information used for accessing the authentication server.

10 20. A terminal device according to Claim 19, wherein the authentication-trigger information includes authentication-server access information for each of the authentication servers ranked in an access precedence order.

15 21. A terminal device according to Claim 16, wherein the authentication-trigger information includes providing-server access information used for accessing the providing server, and the authentication result is transmitted to the providing server by using the providing-server access information.

20 22. A providing server for providing electronic information requiring authentication to a terminal device, comprising:

25 authentication-trigger-information transmitting means

for transmitting, to the terminal device, authentication-trigger information including specifying information for specifying electronic-information using means which starts authentication-information management means;

5 authentication-result receiving means for receiving, from the terminal device, an authentication result of the terminal device generated in an authentication server; and electronic-information providing means for providing electronic information based on the received authentication 10 result.

23. An electronic-information using method performed in a terminal device comprising information communication means; electronic-information using means; and authentication-information management means, the method comprising:

an information communication step of processing, by the information communication means, a function for receiving authentication-trigger information required for using electronic information provided through a network, a 20 function for analyzing specifying information for specifying the electronic-information using means based on the authentication-trigger information, and a specifying function for specifying the electronic-information using means based on the specifying information;

25 a starting step of starting the authentication-

information management means by being specified by the specifying function in the information communication step; and

5 an authentication-information management step of starting the authentication-information management means in the starting step, reading device-authentication information, and transmitting the information to an authentication server.

24. An electronic-information using method according to
10 Claim 23,

wherein, in the authentication-information management step, the authentication-information management means receives an authentication result from the authentication server and transmits the authentication result to a 15 providing server for providing electronic information, and the information communication step comprises an electronic-information receiving step, in which the information communication means receives electronic information transmitted from the providing server based on 20 the authentication result.

25. An electronic-information using method according to
Claim 24, further comprising an electronic-information using step, in which the electronic-information using means 25 further comprises a using function for using electronic

information received from the providing server.

26. An electronic-information using method according to
Claim 25, wherein the electronic-information using means
5 allows a user to browse the electronic information, plays
back electronic information as music content, or plays back
electronic information as moving-picture content.

27. An electronic-information using method according to
10 Claim 23, wherein the authentication-trigger information
includes authentication-server access information used for
accessing the authentication server.

28. An electronic-information using method according to
15 Claim 27, wherein the authentication-trigger information
includes authentication-server access information for each
of the authentication servers ranked in an access precedence
order.

20 29. An electronic-information using method according to
Claim 24, wherein the authentication-trigger information
includes providing-server access information used for
accessing the providing server, and, in the authentication-
information management step, the authentication result is
25 transmitted to the providing server by using the providing-

server access information.

30. An electronic-information providing method performed in a providing server for providing electronic information 5 requiring authentication to a terminal device, the method comprising:

an authentication-trigger-information transmitting step of transmitting, to the terminal device, authentication-trigger information including specifying information for 10 specifying electronic-information using means for starting authentication-information management means;

an authentication-result receiving step of receiving, from the terminal device, an authentication result of the 15 device generated in an authentication server; and

an electronic-information providing step of providing electronic information based on the received authentication result.

31. A terminal-device program comprising an information 20 communication function; an electronic-information using function; and an authentication-information management function,

wherein the information communication function comprises a function for receiving authentication-trigger 25 information required for using electronic information

provided through a network, a function for analyzing
specifying information for specifying the electronic-
information using means based on the authentication-trigger
information, and a specifying function for specifying the
5 electronic-information using means based on the specifying
information,

the electronic-information using means is specified by
the specifying function and starts the authentication-
information management means, and

10 the authentication-information management means is
started by the electronic-information using means, reads
device-authentication information, and transmits the
information to an authentication server.

15 32. A terminal-device program according to Claim 31,
wherein the following functions are realized in a computer:

an authentication-result receiving function for
receiving an authentication result from the authentication
server;

20 an authentication-result transmitting function for
transmitting the received authentication result to a
providing server for providing electronic information; and

an electronic-information receiving function for
receiving electronic information transmitted from the
25 providing server based on the transmitted authentication

result.

33. A terminal-device program according to Claim 31,
wherein the electronic-information using function comprises
5 a using function for using electronic information received
from the providing server.

34. A terminal-device program according to Claim 33,
wherein the electronic-information using function allows a
10 user to browse the electronic information, plays back
electronic information as music content, or plays back
electronic information as moving-picture content.

35. A terminal-device program according to Claim 31,
15 wherein the authentication-trigger information includes
authentication-server access information used for accessing
the authentication server.

36. A terminal-device program according to Claim 31,
20 wherein the authentication server comprises a plurality of
authentication servers, and the authentication-trigger
information includes authentication-server access
information for each of the authentication servers ranked in
an access precedence order.

37. A terminal-device program according to Claim 32,
wherein the authentication-trigger information includes
access information used for accessing the providing server,
and the authentication result is transmitted to the
5 providing server by using the providing-server access
information.

38. A providing-server program performed in a providing
server for providing electronic information requiring
10 authentication to a terminal device, wherein the following
functions are realized in a computer:

an authentication-trigger-information transmitting
function for transmitting, to the terminal device,
authentication-trigger information including specifying
15 information for specifying electronic-information using
means for starting authentication-information management
means;

an authentication-result receiving function for
receiving, from the terminal device, an authentication
20 result of the device generated in an authentication server;
and

an electronic-information providing function for
providing electronic information based on the received
authentication result.